

Applicant : Hiraku Itadani et al.
Serial No. : 09/891,053
Filed : June 25, 2001

Attorney's Docket No.: 14871-083001

In the claims:

Please amend the claims as follows:

1-7. (Canceled)

8-25. (Canceled)

26. (Withdrawn) A method of producing a polypeptide, the method comprising culturing the cultured host cell of claim 20 under conditions that permit expression of the polypeptide in the cell.

27. (Withdrawn) A method for identifying a compound that modulates a G protein-coupled receptor activity, comprising the steps of:

a) contacting a polypeptide of claim 1, or a cell transected with a nucleic acid encoding the polypeptide of claim 1, with a test compound;

b) determining whether the test compound modulates a G protein-coupled receptor activity of the polypeptide or cell,

thereby identifying a compound that modulates a G protein-coupled receptor activity.

28. (Withdrawn) The method of claim 27, wherein the G protein-coupled receptor activity is histamine binding.

29. (Withdrawn) The method of claim 27, wherein the G protein-coupled receptor activity is changing cellular cAMP concentration, changing cellular calcium concentration, activating a G protein, activating phospholipase C, or changing intracellular pH.

30. (Canceled)

/ s/ 31. (Original) A substantially pure polypeptide, the sequence of which consists of SEQ ID NO:20 or 25.

32-35. (Canceled)

³ ~~36~~. (New) A substantially pure polypeptide comprising the amino acid sequence of SEQ ID NO:20 or 25, with up to 3 conservative amino acid substitutions.

⁵ ~~37~~. (New) A substantially pure polypeptide comprising an amino acid sequence at least 99% identical to SEQ ID NO:20 or 25.

³ ⁵
~~7~~ ~~38~~. (New) The polypeptide of claim ~~36~~ or ~~37~~, wherein said polypeptide has seven transmembrane regions and the activity of a G protein-coupled receptor protein.

² ~~8~~ ~~39~~. (New) The polypeptide of claim ~~38~~, wherein the G protein-coupled receptor protein activity is binding to histamine.

⁹ ~~40~~. (New) A substantially pure polypeptide comprising the amino acid sequence of SEQ ID NO:20 or 25.

¹
² ~~41~~. (New) A kit comprising the polypeptide of claim ~~31~~ and instructions for use in a method of screening a compound that modulates a G protein-coupled receptor activity of the polypeptide.

³
⁴ ~~42~~. (New) A kit comprising the polypeptide of claim ~~36~~ and instructions for use in a method of screening a compound that modulates a G protein-coupled receptor activity of the polypeptide.

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⁶ ~~43~~. (New) A kit comprising the polypeptide of claim ~~37~~ and instructions for use in a method of screening a compound that modulates a G protein-coupled receptor activity of the polypeptide.

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~~1044~~⁹ (New) A kit comprising the polypeptide of claim ~~40~~⁹ and instructions for use in a method of screening a compound that modulates a G protein-coupled receptor activity of the polypeptide.